



**Rocky Mountain
Remediation Services, L.L.C**
protecting the environment

Rocky Flats Environmental Technology Site
P O Box 464
Golden, Colorado 80402-0464
Phone (303) 966-2729
Fax (303) 966-8244

October 17, 1996

Karan North
Compliance and Performance Assurance
Building T130C
Kaiser-Hill Company, L L C

RCRA CONTINGENCY PLAN, REQUIRED REPORT - GRK-214-96

The Site had an incidental release of oil containing hazardous substances on October 11, 1996. This event occurred adjacent to Building 774, at the loading location for the tanker that is transferring the oils to Oak Ridge for incineration. It was determined that the release did not immediately endanger health or the environment, but that its release did exceed one pint of liquid. Due to this, off-site notification was implemented in accordance with the Part B Operating Permit, Part VI - RCRA Contingency Plan. Information associated with the off-site notification consisted of the amount of the incidental release, the hazardous constituents that were in the liquid, and the concentrations of the constituents. The citation is as follows:

The incidental release that took place on October 11th was hazardous for

trichloroethene	@ 250 ppm
methylene chloride	@ 33 ppm
1,1,1- trichloroethane	@ 930 ppm

Approximately 1 gallon of this material was released, contained, ~~and~~ immediately cleaned up, and disposed of. There was no threat to human health or the environment.

Additional information associated with the incidental release, the management of the situation, and the RMRS decision to release the tanker from the Site are shown in Attachment 1. Attachment 2 contains the information that is required, by the RCRA Contingency Plan, to be submitted to the Director of the Colorado Department of Public Health and Environment and to the Environmental Protection Agency.

If you need information in addition to that which is enclosed, please contact me.

Gary Konwinski
Environmental Manager

cc

APR 2000
RECEIVED
RECORDS CENTER

ADMIN RECCRD

SW-A-004027

RCRA
SP-11

This addresses only the 02'20
event - pls expand to be in
concord with following events at
16' 33 and 15' 50. Same for
Attach 2 -
96-RM-TA-0155-KH

DRAFT

gma
according to approved procedures
and disposed of

1/38

Attachment 1

The following is a brief summary of the events that took place on October 10 and 11, 1996, relative to the incidental release that occurred adjacent to Building 774

Friday, October 10, 1996

0220 hours A security officer making normal rounds reports liquid being released from an exhaust pipe on a vacuum pump attached to a tanker near 774 The tank trailer was labeled as PCB and hazardous The on-site Hazmat team responded to the location, cleaned up the release, and taped a plastic bag on the exhaust pipe to prevent any further releases An estimated quantity of two pints was cleaned up Liquid Waste Management was contacted

0400 hours The RCRA Contingency Plan was implemented EPA codes for the waste were known to include D009, F001, F002, and F005

0700 hours Shift Manager attended Kaiser-Hill Managers meeting and briefed them on the release and the on-site Hazmat response

1633 hours Building 774 Shift Manager reported that the plastic bag that had been installed on the exhaust pipe had failed and that approximately two gallons of solution had been released The on-site Hazmat team responded and cleaned the area It was determined that the tanker would not be released from the site until senior management from RMRS and Kaiser-Hill concurred that it could be safely shipped Visual inspections of the vehicle were instituted on 30-minute intervals They indicated that no further releases took place

1818 hours Kaiser-Hill reaffirmed that the tanker would not leave the site until John Hill contacted the Shift Manager Preliminary laboratory sample results were received They indicated that no PCB's were found in the released solution Additional results on metals and organics would follow as the laboratory completes the analysis

Saturday, October 11, 1996

1047 hours John Hill reported to the Shift Manager that the RMRS management had indicated that the tanker had suitable integrity and that it could be released from the site Mr Hill concurred with this finding Furthermore, the exhaust pipe that had been responsible for the incidental release had been capped to prevent any further released

1228 hours Shift Manger was contacted by RMRS indicating that the tanker would leave the site The Shift Manager indicated that the appropriate senior level management decisions had been made to release the tanker A driver with Environmental Transportation Services was escorted to the truck

1245 hours Driver was authorized site access and taken to Building 774 and left with the tanker

1550 hours Driver contacted the Shift Manager He noticed that condensation was noticeable at the exhaust stack that had the release RMRS contacted the driver and informed him that it was simply condensation The tanker was hauled to Oak Ridge National Laboratory with no additional releases

DRAFT

1400-1420

Kaiser-Hill representative notified CDPHE and EPA verbally and FAX follow-up of the incident and contingency plan implementation

11:30

Janet Jones
788-4455
CDPHE

4300 Cherry G. Drive
Denver 80222-1530
ATTN: B. H. Shawyer

Director
EPA
312-6293

Mr. Timothy Rader
999 18th Street
Suite 500
Denver CO 80202-2466
ATTN:

Attachment 2

The following is the information that is required for a written report that documents the implementation of the RCRA Contingency Plan

Name, address, and telephone number of the facility owner or operator

U S Department of Energy
P O Box 928
Golden, CO 80402-0928
(303) 966-5878

Name, address and telephone number of facility

Same

Date, time, and type of incident

Friday, October 11, 1996
0220 hours
Incidental release

I W need to identify both incidents and 10/12

Name and quantity of material(s) involved

Trichloroethene @ 250 ppm, methylene chloride @ 33 ppm, and 1,1,1- trichloroethane, @ 930 ppm all of which were contained in an oil base
Approximately a gallon of this material was released

When applicable, an assessment of the actual or potential hazards to human health and the environment, including protective measures taken

The on-site Hazmat team cleaned the area following the release. The entire amount of the release as well as soil that it contacted was recovered. Due to this, there was no risk to human health and the environment. *There was no injury and disposed of according to approved procedure*

Estimate quantity and disposition of recovered material that resulted from the incident

The absorbent wipes and soil associated with this release totaled approximately three cubic feet
They were containerized and placed into permitted storage

as RCRA regulated hazardous waste

DRAFT

Mary, not now, but ASAP we will need -

- 1) Copy of chem. analysis
- 2) " of radiation "
- 3) Where did the cleanup materials go? (e.g. to 90-day site
XYZ in B/774)

All of this goes into final HRR - thanks, Jon



DRAFT

Rocky Flats Environmental Technology Site
P O Box 464
Golden, Colorado 80402-0464
Phone (303) 966-2729
Fax (303) 966-8244

October 17, 1996

96-RM-TA-0155-KH

Karan North
Compliance and Performance Assurance
Building T130C
Kaiser-Hill Company, L L C

RCRA CONTINGENCY PLAN, REQUIRED REPORT -GRK-214-96

The Site had an incidental release of oil containing hazardous substances on October 11, 1996. This event occurred adjacent to Building 774, at the loading location for the tanker that is transferring the oils to Oak Ridge for incineration. It was determined that the release did not immediately endanger health or the environment, but that it release did exceed one pint of liquid. Due to this, off-site notification was implemented in accordance with the Part B Operating Permit, Part VI - RCRA Contingency Plan. Information associated with the off-site notification consisted of the amount of the incidental release, the hazardous constituents that were in the liquid, and the concentrations of the constituents. The citation is as follows

The incidental release that took place on October 11th was hazardous for
trichloroethene @ 250 ppm
methylene chloride @ 33 ppm
1,1,1- trichloroethane @ 930 ppm

DRAFT

Approximately 1 gallon of this material was released, contained, and immediately cleaned up.
There was no threat to human health or the environment.

Additional information associated with the incidental release, the management of the situation, and the RMRS decision to release the tanker from the Site is shown below. Attached to this correspondence is the information that is required to be contained within a written report that is filed with the Director and the EPA.

To: Karlan Richards Fax 3359

Gary Konwinski
Environmental Manager

20 pages

cc

From: Gary Konwinski

OCT-14-98 MON 14:29

STABIL & CLOSURE PROJS

FAX NO. 303 966 3359

P. 01

OCT-14-98 MON 14:29

BLDG 881 ROOM 212

FAX NO. 303 966 3430

P. 04

OCT-14-98 MON 13:58

P. 04

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9710372-002.002RE

DL

Lab Name: RFETS - ROL

Contract: NA

Project No.: NA

Site: RFETS

Location: B569

Group: ROL

Matrix: (soil/water)

SOIL

Lab Sample ID: VQA001

Sample wt/vol:

1.0041 (g/mL)

G

Lab File ID: VQA001.D

Level: (low/med)

MED

Date Received: 10/11/98

% Moisture: not det.

Date Analyzed: 10/14/98

GC Column: DB-624

ID: 0.53 (mm)

Dilution Factor: 3000.0

Soil Extract Vol:

10000 (uL)

Soil Aliquot Volume: 10 (uL)

CAS No.	Compound	Concentration Units (ug/L or ug/Kg)	ug/Kg	Q
74-87-3	Chloromethane		80000	U
75-01-4	Vinyl chloride		80000	U
74-89-9	Bromomethane		80000	U
75-00-9	Chloroethane		75000	U
75-85-4	1,1-Dichloroethane		75000	U
67-64-1	Acetone		60000	U
75-15-0	Carbon disulfide		60000	U
75-08-2	Ethyl acetate		60000	U
156-60-6	trans-1,2-Dichloroethane		60000	U
75-01-3	1,1-Dichloroethane		60000	U
156-59-2	cis-1,2-Dichloroethane		25000	U
78-93-9	2-Butanone	NOT DETECTED (200ppm)	30000	U
67-66-3	Chloroform		25000	U
71-55-8	1,1,1-Trichloroethane		930000	U
56-23-5	Carbon tetrachloride		25000	U
71-43-2	Benzene		28000	U
107-08-2	1,2-Dichlorobenzene		28000	U
78-01-6	Trichlorobenzene		28000	U
78-87-5	1,2-Dichloropropane		15000	U
78-27-4	Bromodichloromethane		28000	U
	cis-1,3-Dichloropropane		28000	U
108-10-1	4-Methyl-2-pentanone		8800	U
108-68-3	Toluene		67000	U
	trans-1,3-Dichloropropane		25000	U
78-00-5	1,1,2-Trichloroethane		28000	U
127-18-4	Tetrahydrofuran		9200	U
851-78-6	2-Hexanone		25000	U
124-48-1	Chlorobromomethane		25000	U
108-90-7	Chlorobenzene		25000	U
100-41-4	Bibenzene		91000	U
	m,p-Xylene		850000	U
88-47-6	o-Xylene		420000	U
100-42-5	Styrene		25000	U

FOO1/FOO2

FOO5

FOO1/FOO2

D0410

1000000

1 = 0.5 ppm

33 ppm

6 ppm

30 ppm

930 ppm ~ 1%

250 ppm

57

gas

91

550

420

2/90

Page 1 of 2

FORM 1 VQA

Norm Stoner

x4289

PQR

6 mi -
 sludge - water mix
 SOLE ET
 PCB - 12 ppm

10/12/98
 1.881 GC/115

OCT-14-96 MON 14:30

STABIL & CLOSURE PROJ3

FAX NO. 303 966 3359

P. 02

OCT-14-96 MON 14:23

BLDG: 881 RUM 212

FAX NO. 303 966 3400

P. 02

OCT-14-96 MON 13:58

P. 02

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

07L0372-003.003

Lab Name: RFETS - ROL

Contract: NA

Project No.: NA

Site: RFETS

Location: B559

Group: ROL

Matrix (soil/water)

SOIL

Lab Sample ID: VOAP02

Sample wt/vol

3.0020 (g/mL)

0

Lab File ID: VOAP02.D

Level (low/high)

MED

Date Received: 10/11/96

% Moisture: not det.

Date Analyzed: 10/11/96

GC Column: DB-624

ID: 0.53 (mm)

Dilution Factor: 1700 0

Soil Extract Vol:

10000 (uL)

Soil Aliquot Volume: 10 (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/Kg	
74-87-3	Chloromethane		17000	U
75-01-4	Vinyl chloride		17000	U
74-83-9	Bromomethane		17000	U
75-00-3	Chloroethane		25000	U
75-35-4	1,1-Dichloroethane		25000	U
67-64-1	Acetone		17000	U
75-15-0	Carbon disulfide		17000	U
75-09-2	Methylene chloride		21000	
186-80-5	trans-1,2-Dichloroethane		17000	U
75-34-3	1,1-Dichloroethane		4500	J
186-80-2	cis-1,2-Dichloroethane		8500	U
78-93-8	2-Butanone		8500	J
67-66-3	Chloroform		8500	U
71-55-6	1,1,1-Trichloroethane		70000	M
88-23-5	Carbon tetrachloride		8500	U
71-43-2	Benzene		8500	U
107-06-2	1,2-Dichloroethane		8500	U
79-01-8	Trichloroethane		250000	
78-87-8	1,2-Dichloropropene		8500	U
75-27-4	Bromodichloromethane		8500	U
	cis-1,2-Dichloropropene		8500	U
108-10-1	4-Methyl-2-pentanone		4300	J
108-88-3	Toluene		40000	
	trans-1,3-Dichloropropene		8500	U
78-00-5	1,1,2-Trichloroethane		8500	U
127-18-4	Tetrachloroethane		8500	J
591-78-6	2-Fluorone		8500	U
124-48-1	Chlorodibromomethane		8500	U
108-90-7	Chlorobenzene		8500	U
100-41-4	Bibenzene		70000	
	m,p-Xylene		510000	
95-47-6	o-Xylene		340000	
100-42-5	Styrene		8500	U

OCT-14-98 MON 13:58

P. 03

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

87L0072-003.003

Lab Names: RFETS - ROL

Contract: NA

Project No.: NA

Site: RFETB

Location: B690

Group: ROL

Matrix (soil/water)

WATER

Lab Sample ID: VCAP02

Sample wt/vol:

3 0020 (g/ryd)

Lab File NO: Y0AF02.D

Leviticus (low/med)

Date Received: 10/11/98

% Moisture: not det.

Date Analyzed: 10/11/88

GC Column: DB-524

ID: 0.53 (b)(7)(F)

Diffusion Factor 1700.0

Sample Extract Vol:

10000 h/L

Sample Extract Aliquot Volume: 10 μ L

[illegible]

P. 04

FM 100 303 300 3400

P. 105

OCT-14-98 MON 13:59

R. 100

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

97L0372-402.002RE

Lab Name: NFETs - JOL

Contract: NA

Project No.: NA

Site: RFETS

Location: B369

Group: ROL

Matrix: (soil/water)

해설

Lab Sample ID: VOA001

Sample wt/vol:

1.0041 (g/mL)

Lab File ID: VQA001.D

Level: low/mod!

MED

Date Received: 10/11/88

% Moisture: not doc.

Date Analyzed: 10/14/98

GC Column: DB-624

ID: Q.58 (nm)

Dilution Factor: 3000.0

Soil Extract Vol-

10000 fL

Ball Allquot Volume: 10 (103)

[illegible]

FBI OIL SHIPMENT ISSUES

The ITT tanker trailer used to ship LLM liquids to the ORR TSCA Incinerator is owned and maintained by the Oak Ridge K-25 Site. When a liquid waste shipment is made to the K-25 Site, a commercial transporter is subcontracted to pick up the trailer at the K-25 site, deliver it to the waste generator/shipper, and return the filled trailer to K-25. It is customary for a representative of the K-25 site to visit a waste generator the first time the generator ships waste to K-25, for the purpose of instructing the generator.

As is customary with a generator's first shipment to K-25, a representative of the K-25 site visited RFETS when we loaded our first shipment of waste on September 23-24, and walked us through the initial start-up, loading evolution, and shut down. Upon our request, and well prior to the scheduled ship date, K-25 also provided RFETS with a copy of their written tanker loading/operating procedure, which was incorporated into RFETS's loading/shipment Work Instructions.

This second waste shipment from RFETS loaded on October 10 and 11 was executed by RFETS personnel only.

A number of factors impacted the waste loading operation, and contributed to the vacuum pump condensate spills.

Under a best-case scenario, the loading and subsequent shipment could have been completed in one day, with a total waste loading time of approximately nine hours. However, the driver was two hours late in arriving at RFETS, and another hour was lost because the vacuum pump's diesel engine would not start and had to be jumped. Therefore, loading operations were ceased at 4.00 on Thursday, with resumption planned for Friday morning.

On Thursday, the vacuum pump (once started) ran as expected, and slightly over half of the shipment was loaded. As expected, the vacuum pump exhaust pipe "spit out" a small volume of combined vapors and condensate upon start up, but the exhaust turned to light vapor only once the system warmed up and reached steady state operation. During the last 4-5 hours of the day's five hours of waste loading, and during system shut down, virtually no free liquid was emitted from the exhaust system. We experienced this same sequence during the first waste loading evolution two weeks ago.

Since no free liquid was observed being generated by the exhaust system, and none was expected, the exhaust pipe was not taped or otherwise sealed upon routine shutdown. A wad of Kim wipes was stuffed into the pipe, however, as a precaution against residual moisture. Since the tanker was only partially filled and could not exit and re-enter the PA, the tanker had to be moved to PACS 1 for the night and watched by WSI.

When the tanker was pulled from the loading site and up the hill south east of 774, a small amount of exhaust condensate, which had apparently collected in the bottom of the exhaust muffler, dribbled out the exhaust pipe and was released to the road surface. When the tanker was parked at PACS 1 and secured for the night, no liquid was

from the instruction and experience of the K-25 representative

which was captured by Kim wipes and plastic bags

Shift to next paragraph

The total volume of liquid released in both of the locations has been estimated at approx. 1 pint

dripping from the exhaust pipe, and there was no indication that liquid had been released when leaving 774.

Early Friday morning, when WSI was making their required security inspections, a puddle of liquid was observed beneath the exhaust pipe, the Haz-Mat team was called, and occurrence notifications began. Investigation of the release at PACS 1 led to discovery of the release at 774. *It became apparent that when the tanker - - -*

An evaluation of the liquid release was carried out early Friday morning. Since the source of the liquid release was well known, additional precautions for capturing free liquids from the exhaust could be taken. Sampling had been organized to confirm the evaluation that the liquid released was condensate and not PCB-contaminated waste oil (visual indication also suggested that the liquid released was not waste oil). The decision was taken to proceed with the loading operation.

As instructed by the K-25 Site representative, a plastic bag and several kim wipes had been placed under the vacuum pump exhaust pipe prior to system start-up on Thursday, to catch the anticipated initial spurt of condensate. This procedure was repeated with the resumption of loading on Friday. The condensate release on Thursday evening was unexpected, and therefore we had not taken measures to prevent or capture this emission. However, liquid condensate was expected from cold start-up, and measures were taken to capture this liquid. In addition, the bag used to capture this liquid was left in place after the system reached steady state and only vapor was being emitted, just in case a small amount of liquid was released comparable to Thursday night's release. Since a "worst case" scenario was planned for, based on K-25's operating instructions and our own experiences, and corresponding control measures were in place, we had no reason not to resume loading operations.

Loading operations throughout Friday went exactly as anticipated. A small amount of free liquid condensate was generated and captured upon start up, and, once warmed up, the vacuum system emitted only vapor exhaust. At approximately 3.00 in the afternoon, and after several hours of normal operation, the Sampling team arrived and sampled the liquid condensate collected in the bag under the exhaust pipe. This sampling was performed to characterize and properly manage the material that had been spilled the night before. The bag barely had enough free liquid condensate for the sample team to collect the appropriate samples. In addition, radiological surveys were taken of the spill sites. Radiological Engineering had previously evaluated the waste being loaded, and prescribed no radiological controls while loading and handling this waste. These precautionary surveys confirmed there were no radiological concerns associated with the condensate releases.

Building 774

As anticipated, the oil level in Tank T-102 dropped to the level of the upper drain line at approximately 4.30 PM. The upper drain line was closed, and loading continued from the lower drain line only. Shortly thereafter, sparging in the tanker trailer indicated that the level in Tank T-102 had dropped to the level of the lower drain line. Once we confirmed that the oil had in fact dropped to this level, and the tanker was pulling air from the tank, the tank was declared empty for shipment purposes, the lower drain line was closed, transfer lines and hoses were evacuated, and tanker shutdown was begun.

Simultaneous to beginning tanker shut down, a significant volume of liquid was observed collecting on the ground beneath the exhaust pipe. Again, the Shift Superintendent was notified, the Haz-Mat team was called to respond, and tanker shutdown was completed. As mentioned earlier, a plastic bag and kimwipes had been placed under the exhaust pipe to collect dripping condensate, and the bag was of sufficient capacity to contain the volume of liquid released. However, a number of factors contributed to the failure of the bag to contain the released liquid.

First, the exhaust pipe exits the tanker trailer fender above the rear wheel of the tractor and the mud flap for this tire, which does not provide for a level or stable platform on which to place a bucket, drip pan, or other rigid containment system. Secondly, the liquid released was part hot vapor and part hot liquid, which caused the bag to soften and slip from its secured position on the tire and mud flap. There is also no mechanism or appendages on the bottom of the trailer fender on which to fasten a bag, pail, or other container. Finally, any containment system placed under the exhaust pipe must allow vapor to freely escape as emitted, as vapor is the primary and intended emission from this system; a bag can not be taped securely to the exhaust pipe itself.

As mentioned earlier, a number of causes contributed to these releases:

- The K-25 representative indicated that tanker could be loaded from individual drums in approximately 45 minutes, (using a two inch "stinger") Since we were drawing liquid from Building 774 through a ~~one~~ one inch line, we estimated loading would take from two to four hours per tanker load. In fact, actual loading took approximately nine hours. The extended waste loading time was probably a key factor in generating more liquid condensate than K-25 had ever experienced before.
- If the tanker had arrived on schedule, and the vacuum pump motor would have started without needing a jump from the garage, the loading operation may well have been completed in one day, eliminating one shutdown and one startup, and reducing the volume of condensate produced.
- Obviously, the vacuum pump exhaust system is not designed ^{to} capture, store, and release liquid condensate on a regular and controlled basis. Several design flaws require modification.
- The demister segment of the vacuum system may have accumulated excessive liquid, which may have contributed to excessive condensate generation and release. Draining the demister is not included in K-25's operating instructions, and was not addressed by the K-25 representative as something that needed to be watched, maintained, or drained.
- The tanker capacity is 6,000 gallons (water), and only 4,000 gallons was loaded to the tanker for the second shipment, so we never neared tanker capacity. However, sparging in the tanker caused by sucking air from the emptied Tank T102 may have caused a slight amount of liquid to splash into the vacuum intake system, and pass through the exhaust system.

Corrective Actions.

The following requirements ^{must} be implemented prior to initiating the next waste loading operation to this tanker trailer. (predominantly by K-25 Operations)

- Repair and/or maintenance of the vacuum pump motor battery, alternator, and electrical system gauge will be performed and documented. When the tanker next arrives at RFETS, this system will be tested prior to bringing the tanker on site. If the motor fails to self start as it should, the tanker will not be brought on site for waste loading.

- The vacuum pump exhaust muffler should be equipped with a system or method to drain accumulated free liquid, as the muffler is the low-point throughout the exhaust system for liquid condensate accumulation
- The exhaust pipe will be fitted with a tight fitting end cap capable of preventing release of accumulated liquids, even those due to changes in ambient temperature and pressure while the system is shut down
- The exit pipe of the exhaust system should be relocated farther to the rear of the tanker fender, to provide for better access for a containment system to be placed/attached under the exit pipe. The current exit pipe location above the tire and mud flap is difficult at best to manage
- K-25 shall provide a schematic and operating instruction for draining the vacuum demister and entire tanker system. RFETS needs a better understanding of the system's capabilities and possible fail points
- The vacuum pump motor fuel tank does not have a full-empty gauge, even though the K-25 operating procedure indicates that running the tank dry can cause significant damage to the engine
- K-25 will be requested to fix a small hydraulic fluid leak in the hydraulic discharge valve at the rear of the tanker.
- Receipt of the K-25 tanker should include certification of 1) vacuum pump motor fuel tank filled immediately prior to departure from K-25, 2) demister drained, 3) vacuum exhaust system drained of free liquid, and 4) battery, alternator, and electrical system serviced and operating
- RFETS Work Instruction will be modified to include a requirement for adequate closure and sealing of the exhaust system prior to moving the tanker or leaving it unattended
- Regardless of modifications made to the tanker, adequate, rigid secondary containment will be in place at all times when exhaust system is not securely sealed.
- As an administrative side note, the truck driver that delivered the K-25 tanker will not be allowed to return, as his repeated tardiness contributed significantly to loading schedule delays, which in turn contributed to generation of an excessive amount of exhaust condensate.

CAS#

1336-36-3 PCBs

①

CERCLA RQ

EPA Title III Lists of Lists

234 - product

< 2 ppm - concentrate

② detection limit of 2 ppm

Tank 103 Chemistry Data
Items M11, M12 and M13

Substance ID	Concentration (estimated)	Substance Name
7439-92-1	39 ug/g	Lead
75-09-2	0.28 g/L	Methylene Chloride
91-57-6	0.076 g/Kg	2-Methylnaphthalene
85-01-8	0.091 g/Kg	Phenanthrene
206-44-0	0.075 g/Kg	Fluoranthene
117-81-7	0.22 g/Kg	bis(2-Ethylhexyl)phthalate
117-84-0	0.052 g/Kg	Di-n-octylphthalate
	923 g/Kg	Unknown hydrocarbon

Tank 103 Radiochemistry Data
Items R7, R8 and R9

Isotope	Estimated Quantity	Units
Pu-238	0.0882	pCi/g
Pu-239	3.95	pCi/g
Tc-99	11.0	pCi/g
U (alpha activity)	5.67	pCi/g
Np-237	0.00	pCi/g
Th-228	0.213	pCi/g
Th-230	0.471	pCi/g
Th-232	0.0336	pCi/g
Cs-137 (gamma)	0.106	pCi/g
Pa-234m (gamma)	-19	pCi/g
Th-234 (gamma)	6.01	pCi/g
U-235 (gamma)	0.203	pCi/g

Jim M 466-5561

Warehouse 966-5745

Joe Molter 460-0411

7714 page

John Hill

215-0528 bad**

John Wrapp 665-9875

Karen North (303) 582-3265

1-800-514-8786 page

Jim:

The incidental release that took place on October 11th was hazardous for:

Trichloroethene	@	250 ppm	} FOOL/FOOZ
Methylene Chloride	C	33 ppm	
1,1,1-Trichloroethene	C	930 ppm	

Approximately one gallon of this material was released contained & immediately cleaned up.

There was no threat to human health OR the env.

Lang Kinner

The following is a list of information, actions, and decisions that must be recorded in the Shift Superintendents log book when the RCRA Contingency Plan is implemented and a formal written report of the incident will be submitted to CDPH&E within 15 calendar days

- Date and time the hazardous waste incident was identified or discovered
- Location of incident (including room number if incident is within a building)
- Name of released material (including applicable hazardous waste codes).
- Quantity of material released (in pounds)
- Extent of release (including statement if captured by secondary containment or escaped to impact air, soil, surface water, or ground water. Statement should include the name/title of manager who made this determination)
- For incidental releases, name/title of manager responsible for response (including cleanup of released material)
- For releases requiring an emergency response (as defined by 29 CFR 1910.120), name/title of person in charge of response (if different than Shift Superintendent)
- Summary of steps taken to contain and cleanup the release (including liquids, contaminated sorbent, and contaminated soil)
- If decision is made not to containerize the contaminated soil, name/title of manager who made this decision
- Name/title of manager responsible for disposition of recovered material and initial disposition of this material

FACSIMILE COVER SHEET

DATE:

10/15

FROM:

SHIFT SUPERINTENDENT'S OFFICE Joe Herberg
BUILDING 115, EMERGENCY OPERATIONS CENTER
ROCKY FLATS

TELEPHONE 966-2914

FAX #966-3261

TO:

(NAME)

GARY KONWINSKI

(DEPARTMENT)

ROCKY

(PHONE)

(FAX #)

8244

MESSAGE / INFORMATION

S/S Log Pages 85-94

TOTAL PAGES SENT (INCLUDING COVER SHEET):

11

(4th) 85

10/19/96
Thurs Night
086 Shift Mgr
no completion

0025 Authorized a tow truck driver on site to tow a P.V. belonging to Brian Berling from the Garage. Brian met the driver at the West Gate and escorted him to his vehicle.

that P.V. had
with some boxes.
No impact to
it have the
of 19.30 hrs.

out of Charles 1.
in yard gate.
ed Bldg 774
checked and
of Bldg 774
at the Bldg
and

had completed
sufficiently had
sufficient
to inspect

Wt to
by

at

by

can
test

0026 Received a call from WFT reporting a small leak under a tanker truck parked east of the Secondary Alarm Station. Responded and observed a small puddle (approx 1 cup) of unknown liquid on the pavement. Leak was from an exhaust pipe from a vacuum pump mounted on the front of the tanker trailer. Tanker was placarded with "PCB" label and a #3092 hazard label (Environmentally Hazardous Waste). The tanker contained waste oil from a waste oil tank in Bldg 774. It is being filled for transport to Oak Ridge. Contacted the 774 Shift Mgr, ^{the Shift Mgr} to respond. Contacted Fire Dept. Hagmat to respond. Contacted the Bldg 774 Shift Mgr, Joe Gonzales and the 774 Program Mgr, Rich Wagner at home to respond. They contacted Karlan Richards, RMR's Environmental to respond. The oil was confirmed to be PCB hazardous and contained PCBs. Suspect the exhaust condensate which leaked to the pavement to be PCB contaminated. Fire Dept. Hagmat cleaned up the pavement and taped a plastic containment bag around the exhaust pipe to collect any additional leakage. Cleanup waste was taken to Bldg 774 for proper disposal. WFT reported a trail of similar substance on the road east of Bldg 774. Responded with Fire Dept. Hagmat, 774 Shift Mgr and 774 Program Mgr and found two pools of same substance, one ca 30' in length and one ca 10' in length. Estimate a total of 2 pints when combining the two locations. Fire Dept.

86

10/11/96
Thurs Night
Cont

Robert Haymat cleaned up the area and waste was properly disposed of in Bldg 774. Waste Regulatory Programs was called and posted and a message was left on their answer. PMOC was notified as well as the RFE Manager. Bldg 774 Mgmt reported they were contacting the lab to take samples of the asphalt and based on results take appropriate action. The RCRA Contingency Plan was enacted at 02400 hrs. Notifications under the plan will be made by Occurrence Investigations. EPA calls for waste on air, soil, water, food, etc.

0821 - Eric Schumacher, Bldg 776/TT Shift Mgr called to report the Bldg was operational.

0840 - Authorized the Captiva vending truck driver on site to Bldg 130. Driver forgot his badge.

0853 - Marjory Holmes, Bldg 779 Shift Mgr called to report the Bldg was operational.

10/11/96
FRI - DAY

0645 - 1845 M.F. Hickey

0700 - Attended K-H Mgmt meeting & briefed on S/S Daily Summary & the Haymat response (See entry 0220).

0725 - Briefed FR Phillips & John Hill on oil leak potentially contaminated with PCB's from tanker truck.

0815 - Requested by Skip Chandler to respond to excavation at Sewage Treatment Plant with 95 camera. Side of excavation had slumped during night causing a water line break (partially repaired - water) and bottom of hole had ponded in.

10/11/96
FRI - DAY
CONT

0818 - Bob Brown operators in 3/4
0920 - Resp leak at low water gauge accumulated
0948 - Kevin Marino the problem of cleanup.

0948 - Kevin Marino the problem of cleanup separating the fresh water were being to order that the vulnerable has been pursued after management

1015 - Joe G. that he has team had told him that both the fact & also to so

1145 B/886

(P) 87

and waste

24. Work

posed and
ex. PMOCManager. Bldg
along the lake
of basement

The RCRA

at 7:0400 hrs

all has made

EPA Cate for waste

19 Shift Mgr called

in

long truck driver

got his badge

19 Shift Mgr called

in

19 Shift Mgr called

in

oil

from

respond to

with 9/5

during

likely revised

added in

10/15/96

10:00 AM

10:00 AM

several areas. One of these areas had already been
cracked due to bad concrete. Subcontractor, Hatten Summit
RMRS Safety, Todd Hygiene, STP & regulatory reporting
personnel all on scene. Tom Bourgoin will update.

0918 - Bob Brumage, NPT, reported monitoring NPT
operations in 3/491

0920 - Responded with Fire Dept on report of old oil
leak at last 920. Emergency generator probably caused
when garage personnel periodically refill with diesel.
Accumulated did not start a Hazmat cleanup. Contacted
Gene Marino & Todd Fiesche who were aware of
the problem & will contact Garage personnel to effect
cleanup.

0948 - Revisited the STP excavation with the
Hazmat response group for orientation. A small berm
separating the potentially contaminated water from
the fresh water had been built. Also measures
were being taken to stabilize slumped area in
order that the Site's main sewer line not be
vulnerable to breakage. A contingency plan
has been put in place in case such a breakage
occurs. Further remediation efforts will be
pursued after discussion with RMRS Senior
management & K-H Mark Spies.

1015 - Joe Gonzales, B/174 Shift Mgr reported
that he had understood that Fire Dept. Hazmat
Team had taken samples for analysis. I advised
him that he needed to get a sample team for
both the tank holding the same material in 8/174
& also to sample (if possible) the stored asphalt.

1145 B/886 Shift Mgr reported going to Ops Condition II.

88

10/11/96
FRI DAY
CONT'D

1250 - S/S on duty served with subpoena by DOE attorney Ward Rigby to report for a deposition to U.S. Court of Federal Claims on case of Rockwell Int'l Corp v. The United States of America (Defendant). S/S had been advised earlier at 0900 by Joe McCart that this was impending.

1420 - Joe Gonzalez updated on Status of samples. PCB results should be back today. At the stained asphalt was impossible to sample.

1446 - Bob Brannage reported completion of NDT Ops
ROCKY

1527 - B/779 Shift Mgr reported she was turning the facility over to B/776 Shift Mgr, Joe Goggins, who is on call this weekend.

1529 - B/559 Shift Mgr, Laughlin reported securing the facility for the weekend. Kerry Smith is on call.

1630 - Tom Bourgeois provided status update on 915 STP excavation. To fixing his leg.

1633 - B/774 Shift Mgr Joe Gonzalez reported that the bag underneath the Tanker truck outside B/774 had just "failed" & dumped approx 2 gallons of potentially PCB contaminated oil on both asphalt & ground. Responded with the Fire Dept Hazmat team. Upon confirmation that ~~it was~~ the area was not an I HSS area, Hazmat team proceeded to clean up the ground and placed it in 5 bags and put the material double bagged. S/S advised that the tanker which has now been filled today to greater than 90% of its capacity, approx 4700 gallons, should not be released for interstate road

10/11/96
FRI DAY
CONT'D

1630 - Authority
WSE for Bk
to continue drill
His page is 1-

1715 - Cleared
Exc. K-H n

1632 - Receiver
to check there's
he left left

10/11/96
FRI DAY

1845 - 0645

1419 - Received
Joe Edwards
was unusual
for repairs in

1818
1818 - Made an
who responded
See 1633 has
with D.W. Lane
then on the
the S/S office
RA w/ no
personal dis
mgr. That RA
with the teacher
Waste Regulator
required work

with subpoena by
to report for a
Federal Claims on
The United States of
head advised earlier at
this was impending.

led on Status of
should be back today
was impossible to sample

ed completion of NDT Ops

ted she was turning
to Shift Rye, Joe
3 weekend.

Laughlin reported
weekend. Kerry

status update on
this log.

leg reported
the truck a side
ed approx 2 gallons
oil on both asphalt
left. Haghat team
was not on
ded to clean
5 bags and left
ided that the
day to greater
4700 gallons,
ake Road

transport until left RMR & KH since management
assure that they have confidence there will be no
further leaks. Contacted Jim McAnally, Martin Warner,
Gary Kowinski of RMR & advised same. Also advised
John Wrapp to determine need for additional RRA contingency funds.

1730 - Authorized access to B/124 to be provided by
WSE for Blaine Wright who needs a water supply
to continue drilling operations for Lake Construction.
His page is 1-800-277-6958

1915 - Cleared response from B/774 & returned to
EOC. K-H agent advised including J. Ferrera.

1632 - Received request from David Garter 432-1125
to check Mar's locker room in B/234 since he believes
he left left his wallet there.

1845 - 0645 Gary G. Carmel

1419 - Received another message from Data Maintenance
John Edwards reporting that the ESENat Post 970
was responsible. Vendor will not be able to respond
for repairs until Monday, 10/14. Notified WSE.

1818 - Made contact with on-duty 5/5 Margaret Pichey
who responded to a tanker truck leak at Bldg 774.
See 1632 hrs. Following return to Bldg 115, made contact
with D.W. Fanning, John Hall, and Pat Card and briefed
them on the situation. An agreement with John Hall,
the 5/5 officer will not allow the tanker to leave the
Pt w/o verbal authorization from John Hall or his
personal designee. Confirmed with Pat Matker, program
mgr that OPA Rodex was contacted regarding the problem
with the tanker. Confirmed with John Wrapp, K-H
Waste Regulatory Programme that WRP had the lead for
required notifications. No sample results indicate Copper

90

10/11/96
Fri Night
Cont

10/11/96
Fri Night
Cont
P&B which is less than the regulated limit of 50ppm. Per Karen North, substance is ~~not a~~ reportable quantity. Bob Moller reported that the exhaust pipe will be capped/plugged and an additional plastic bag will be taped over the capped pipe as a secondary containment for transport to Oak Ridge. RMRS set up 30 minute surveillance by RMRS personnel to make sure no additional leaks. Initiated RRR Contingency Plan @ 2130/1930 hrs

001 - Received a call from Dale MacLum, 707 Shift Mgr reporting an RGT with an apparent broken blood vessel in his eye. The injury occurred while at work but was not connected to a work related injury by Dale or the injured party. Contacted Fire Dept to send EMTs to the Shift Mgrs office to evaluate. Patient was found to be OK. He will be kept out of the controlled area for the remainder of the shift but allowed to continue work.

001 - Received a call from WSE reporting a strange vehicle on Anchoona. The vehicle was driving slowly sometimes with lights on and sometimes with lights off. There appears to be someone walking in front of the vehicle. Advised Charly to contact Jeffery. Agreed not to send a WSE unit out on Anchoona to check it out.

0017 - Rich Bergasa Public 371 Shift Mgr called to report a temporary smell of paint rubber in Stanswell Bldg. Hg, 30E and 123 Waste personnel responded and checked all systems with everything operating as designed. ~~There will~~ so 10-15 minute checks and report if there are any problems.

10/11/96
Fri Night
Cont

0222 - Rich Gra report that to color in status bar for the p not function and the A p forms is being occurrence regis

0430-0500 - Rich and found in 10 having gith

0430 - Hold Shift

0636 - Tony Hsu report he is working in

10/12/96
SAT-DAY

0645 - 184

0705 - PER
ANTI-C
@ BLOC
BE INTER
CONTAMIN

0735 - ANTI
ARSA) FOR

0737 - STW
OF PLANN
(0800-1200 H

0805 - PER
TIM HED

91

10/11/96 0622- Rich Granger, Bldg 371 Shift Mgr called to
 Fr Night report that the T&E isolated the cause of the
 Cont. issue on atomwell 6. They found the 725 B Pump
 was for the plant air compressor bound up and
 not functioning. The B pump was shut down
 and the A pump was activated. A work order
 form is being written. Not linked to V&S. No
 occurrence report required.

0430-0500 Received several calls from Larry Hankins
 and found informing me about the progress Larry
 is having getting those Hankins out of jail.

0430 Hold Shift Activity Meeting with W&E Transmittal.

0636 Tony Hernandez, O&E Maintenance called to
 report he & 8 other maintenance workers would
 be working on Bldg 663 for 3-9 hrs today.

10/12/96 0645- 1845 m T. Deal
 SAT-DAY

0705 - PER DON COBERLY, REPAIRING OF
 ANTI-C CLOTHING (L-S9 CONTAINERS)
 @ BLDG 444 TODAY. ALSO, THERE WILL
 BE INTERIOR PAINTING OF FLEX ED
 CONTAMINATION SPOTS INSIDE OF BLDG. 663.

0735 - AUTHORIZED SITE ACCESS (T-130
 AREA) FOR MIKE MAYDER OF CANTEN

0737 - STEVE BUTLER, DOE, NOTIFIED S.S
 OF PLANNED BUFFER ZONE TOUR TODAY,
 (0800-1200 HOURS). GAS ALSO NOTIFIED.

0805 - PER PHONE CALL REQUEST FROM
 TIM HEDALL, STATUSES HIM ON DANKIE

92

10/12/96 TRUCK LEAK @ BLDG 774 (SS LOG @
SAT-DAY 1633 Hours - 10/11/96)
(CONT.)

1047 - JOHN HILL ADVISED ME THAT
FOLLOWING DISCUSSION WITH
RMR'S MANAGEMENT HE IS NOW
AUTHORIZING THE SHIPMENT OF
THE TANKER TRUCK @ BLDG 774 (SS LOG
@ 1633 Hours - 10/11/96). THE PROBLEM
WITH THE VACUUM PUMP ON THE
TRUCK (WHERE LEAK OCCURRED) IS
REPAIRED. ADDITIONALLY THE VAPOR
TRAP IS EMPTY AND HAS BEEN CLEARED OUT.
SHORTLY AFTER JOHN'S CALL, DOUG PARKER
CALLED 'INQUIRING IF THE TRUCK WILL
NEED TO LEAVE TODAY. I CONTACTED
BOB MOULTON (RMR'S) WHO STATED IT
WILL NOT BE SHIPPED TODAY. I
CONTACTED DOUG TO INFORM HIM
THAT TRAFFIC'S ASSISTANCE IS NOT NEEDED
TODAY.

1114 - RECEIVED REPORT FROM JEFF
(TELECOMM) OF A BURNING
ELECTRICAL ODER IN BLDG 125,
HIGH BAY AREA. CONTACTED FIRE
DISPATCH WHO TOWED OUT RESPONSE.
RESPONDED, CAUSE IS A BURNED OUT
BALLAST. FIRE DEPARTMENT ISOLATED
POWER TO FIXTURE. THE SHIELD IS
NOT DISSIPATING (CONFIRMED BY SOL
@ 1200 HOURS). CONTACTED FAC OPS
ON CALL MGR (FRANK MARTINO) TO
PROVIDE ELECTRICIANS TO FORMALLY
LOTO POWER SOURCE AND/OR REPLACE
BALLAST LOCATED ROOM 125, AREA 'LP1G-5'

10/12/96 1228 - DON
SAT-DAY THAT THE
(CONT.) TANKER @
PARKER IN
RESPOND. F
TRANSPORT.
WILL BE

1235 - DOE

1245 - AN
DRIVER (J)

1250 - SPO
A SUBCOM
HART HUB
CONCLUDED
BADGE HAS
HER CHECK
SPO TO
GET ONE
BADGE (E

1255 - TOM
THAT HE A
MARVEN
LP1G-5 C
BALLAST C

1550 - RECE
SERIES DR
TANKER FI
CONSENSUS
PIPE FRO
DURING
MOULTON (P

Wm 93

74 (SS LOG @ 11/2/96 1228 - BOB MOULTER CALLED TO REPORT
THAT THEY DO WANT TO TRANSPORT
TANKER @ BLDG 774 TODAY DOUG
PARKER TRAFFER CONTACTED AND WILL
RESPOND. A DRIVER WITH 'ENVIRONMENTAL
TRANSPORTATION SERVICES' (JAMES SCHILD)
WILL BE ESCORTED BY JOE TO BLDG 774.

SA W/ THAT
WITH
IS NOW
MENT OF
BLDG 774 (SS LOG
E PROBLEM
ON THE
W/ED) IS
TE VAPOR
BEEN CLEARED OUT
DOUG PARKER
E TRUCK W/TH
E CONTACTED
TO STATE IT
TODAY I
FORM HIM
E IS NOT NEEDED

FROM JEFF
URNING
BLDG 125,
STARTED FIRE
OUT RESPONSE.
BURNED OUT
NOT ISOLATED
E SMELL IS
FURNIS BY SOE
TO FAC OPS
W/NO) TO
E FORMALLY
E REPLACE
E LPIG-5)

1235 - DOE BUFFER ZONE TOUR COMPLETED.

1245 - AUTHORIZED SITE ACCESS FOR
DRIVER (JAMES SCHILD) TO BLDG. 774 YARD.

1250 - SPO @ 920 POST CALLED REGARDING
A SUB CONTRACTOR EMPLOYEE WITH 'MCMEN
HART' HUBERT VAN FELY, WHO HAS
CONCLUDED HIS CONTRACT (HIS ACCESS
BADGE HAS EXPIRED) HE WANTS TO GET
HIS CHECK @ T-891. I AUTHORIZED
SPO TO ESCORT HIM TO TRAILER TO
GET CHECK AND ALSO REQUESTED HIS
BADGE (EXPIRED) BE CONFISCATED

1255 - TONY FERNANDEZ (FAC OPS) REPORTED
THAT HE AND ANOTHER SUPERVISOR - BOB
MAVLEY WILL APPLY LO/TO TO PANEL
LPIG-5 @ BLDG. 125 UNTIL THE
BURNST CAN BE REPLACED, MONDAY, 10/14

1550 - RECEIVED CALL FROM 'ENV. TRANSP.
SERV.' DRIVER JAMES SCHILD TRANSPORTING
TANKER FROM BLDG. 774. HE WAS @ I/6 TRAIL STOP
CONCERNED THAT OAG SEALING EXHAUST
PIPE FROM VACUUM PUMP HAS BLOWN
BURSTING UP. I CONTACTED JOE
MOULTER (RWR) WHO SAID IT WAS

94	<i>Handwritten initials</i>		
10/12/96	EXPECTED CONDENSATE THAT WOULD	10/13/96	HIGH
SAT-DAY	BACK UP INTO AN OUTER PEARL IF	SUN-DAY	HE IN
(CONT)	DATE BECAME TOO FULL. THE CONDENSATE	(CONT)	THAT WOULD
	WAS SAMPLED YESTERDAY AND IS 2 PM		DRAIN SYSTEM
	PCB. I HAD THE SKYSPACE DRIVER		CONTACT
	AND EXPLAIN IT TO HIM. IN A		A PLANNED
	FOLLOW-UP CALL JOE EXPLAINED THAT		KESTONE P
	THE TANKER BELONGS TO OAKRIDGE		INDICATED
	AND THIS IS THE FIRST TIME WE'VE		10/12 AND
	USED IT, ALTHOUGH WE WILL NEED		SPEAKED A
	THIS TYPE OF TANKER FOR FUTURE		
	SHIPMENTS OUT OF BLOC 774. ALSO,		1200 - BLOC
	OAKRIDGE HAS BEEN TOLD NOT TO		CALLED CO
	SEND US THIS TYPE OF TANKER		ON THE
	AGAIN UNLESS THEY MODIFY IT		CONCERN
	WITH A PERMANENT CAP TO RECTIFY		WOULD NOT
	THE CONDENSATE LEAK ISSUE. STATUS		OF WATER
	PM 02 - D. FIRECA.		LEAK SUR
			FIRE WATER
			CONTACTED
			STATED IT
			SINCE
			AND SO
			4 SO'S
			HE STATED
			PCRA ISSU
			TO GET
			881 SO'S
			AND PLAN
			SUM SO'S
10/12/96	1845 - 0645 <i>Handwritten signature</i>		
SAT-NIGHT			
	1940 - 371 STARTED MEASURING A BREAKER		
	HAD TRIPPED & THE BLUE SO'S ARE		
	CURRENTLY STARTING PROCEDURE TO RE-SET		
	PLANT POWER WAS NOTIFIED TO CHECK ON		
	ANY POSSIBLE BUMP OR MAY HAVE OCCURRED		
	1930 - 371 RESET HANDLING O.K. FIRE DEPT		
	WILL CHECK SUR & RESET AS NECESSARY		
	2430 - MET WITH CPT SHIELDS FOR DAILY		
	NSI REPORT & CIRS		
10/13/96	0645 - 1845 <i>Handwritten signature</i>		
SUN-DAY			
	0918 - HOU @ BLOC 995 (STP) REPORTED		

PART VI - RCRA CONTINGENCY PLAN

A PURPOSE OF PLAN

The Rocky Flats Environmental Technology Site (RFETS) RCRA Contingency Plan is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water

1 Definitions

The Emergency Coordinator (EC) is responsible for coordinating all emergency response measures as outlined in this RCRA Contingency Plan. Reference Part VI (B) for a description of who may serve as the EC and the specific duties of the EC

The RFETS Site Emergency Plan (EPLAN) is a clear and concise description of the overall emergency organization, designation of responsibilities and procedures involved in responding to a situation that has been classified as an "Emergency" by DOE Orders

The Incident Commander (IC) is the on-scene individual responsible for situation management in order to mitigate an "Emergency" as classified by DOE Orders, ensure personnel safety, personnel accountability and facilitate mitigating operations

A release is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the air, soil, surface or ground water or into containment (i.e., building or secondary containment). A release involving volatile constituents that escape containment and reach the air will be categorized as a release to the environment

There are four types of responses to releases that are relevant to this RCRA Contingency Plan: incidental and emergency as defined in 29 CFR 1910.120, "Emergency" as classified by DOE Orders and emergency as defined by the Interagency Agreement

- 1) A response to an incidental release includes a response to a release that can be safely absorbed, neutralized, or otherwise controlled at the time of the release by employees in the immediate area or releases that do not pose a potential safety or health hazard
- 2) An emergency response means a response effort by employees from outside the immediate release area or by other designated responders (e.g., HAZ-MAT Team) to an occurrence that results, or is likely to result, in an uncontrolled release of a hazardous substance
- 3) An incident that has been classified as an "Emergency" per DOE Orders will require implementation of the RFETS Site EPLAN

PART VI - RCRA CONTINGENCY PLAN

A. PURPOSE OF PLAN

The Rocky Flats Environmental Technology Site (RFETS) RCRA Contingency Plan is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water

1. Definitions

The Emergency Coordinator (EC) is responsible for coordinating all emergency response measures as outlined in this RCRA Contingency Plan. Reference Part VI (B) for a description of who may serve as the EC and the specific duties of the EC

The RFETS Site Emergency Plan (EPLAN) is a clear and concise description of the overall emergency organization, designation of responsibilities and procedures involved in responding to a situation that has been classified as an "Emergency" by DOE Orders.

The Incident Commander (IC) is the on-scene individual responsible for situation management in order to mitigate an "Emergency" and for personnel accountability.

A release is any spill, escaping, leaching, during containment (i.e., build that escape containment

There are four types of Plan: incidental as by DOE Orders are

- 1) A response safely employed or hazardous

- 2) An error in the Incident Management Team) releases

- 3) An incident requiring

This waste is RCLL regulated at least for this: D040.

The MeCl₂, MEK, and 1,1,1 tris are regulated

only if they were used as degreasers or solvents.

I would not consider the toluene, ethylbenzene + xylene regulated: they are probably contaminants from gas line

Please call if you have questions

acting, to constituents ment. gency lassified

at can be release by al safety

outside AZ-MAT led

s will

10-24-94

C IMPLEMENTATION OF THE PLAN

The initial discovery, notification, and response for any conditions or events (including non-emergencies) that represent a problem or concern that could have a negative impact on the environment will follow the "Occurrence Reporting Process" procedure. The Shift Superintendent will notify and direct EG&G's Notification Center to initiate notifications in accordance with the "Occurrence Notification Process" procedure. The Notification Center is the on-site facility charged with making required initial and follow-up notifications to the Director of the CDPH&E and the EPA, Region VIII.

When information becomes available on the specific nature of an incident, including such items as type and quantity of released material or injuries incurred, the EC will consult with environmental specialists and other appropriate personnel (as outlined in the Hazardous Waste Requirements Manual) to make a determination whether the incident requires full implementation of the RCRA Contingency Plan (including notification to CDPH&E and EPA, Region VIII). This determination shall be made as soon as possible but no later than 24 hours of discovery of the incident. (Note: Due to this requirement, the contingency plan may be implemented as a precautionary measure if complete information is not available at the time of the incident. Response and cleanup activities will not, however, be delayed awaiting this determination.)

Figures 1 and 2 present decision trees used at the facility to determine when RCRA Contingency Plan notification and reporting are required. As shown in the figures, the RCRA Contingency Plan will be implemented in the following situations:

- A hazardous waste incident results in an injury requiring more than first-aid
- A release of a hazardous waste to the air, soil, surface or ground water (i.e. a release that occurs outside a building or outside a containment system that is not contained within a building) if the release to the air, soil, surface or ground water is greater than one pint or one pound

NOTES A release involving volatile constituents that escape containment and reach the air will be categorized as a release to the environment and will require implementation of the RCRA Contingency Plan if more than one pound of hazardous waste was released to the air.

Implementation of the RCRA Contingency Plan may be required for releases of hazardous substances if the released material which, when discharged, becomes a hazardous waste.

Releases of petroleum products or oil from vehicles or diesel powered equipment (e.g. emergency generators) will be managed per the requirements of this plan except that no verbal notifications or the written followup reports to the Director or EPA will be completed. The applicable notifications will be completed, if required by other regulations.

- A fire and/or explosion in which a hazardous waste release or an active hazardous waste management unit is involved
- The RCRA Contingency Plan can be implemented in situations other than those outlined above at the discretion of the EC.

The response actions outlined in Part VI(D) will be completed for the following situations. The reporting requirements outlined in Part VI(D)(1)(b) and (8) and Part VI (H) will not be required. Instead, along with a verbal notification to CDPH&E Emergency Management Unit (EMU), a brief written report describing the date, time, and location of incident, the name, quantity, and extent of released material, and the actions taken or planned to cleanup and/or remove the released material, will be provided by facsimile, no later than the next working day, to the CDPH&E Hazardous Materials and Waste Management (HMWM) Division representative

- A spill, leak, or other release of hazardous waste inside a building results in
 - A release which exceeds a reportable quantity equivalent volume as defined in Title 40 of the Code of Federal Regulations (CFR) Part 302
 - A spilled waste from a hazardous waste tank system not removed from secondary containment within 24 hours

The RFETS Site EPLAN will be implemented for a hazardous waste incident that meets the criteria of an "Emergency". The RFETS Site EPLAN serves as an umbrella to ensure the proper reporting of and response to all imminent or actual "Emergency" situations at the Plant that meet the criteria established in the "Emergency Classification" procedure. Examples of "Emergency" situations that may result in implementation of the RFETS Site EPLAN include

- | | |
|--|-------------------------------|
| • Fire/explosion | • Civil disturbances |
| • Chemical hazardous materials releases | • Terrorist Attack |
| • Radioactivity releases | • Bomb Threat |
| • Nuclear excursion/criticality | • Vehicular/Aircraft accident |
| • Natural disasters, winter storms,
high winds/tornados, earthquake, floods | • Utility failures |

For hazardous waste incidents that do not meet the criteria listed above, the response actions outlined in Part VI (D) will be completed except for the off-site notifications to CDPH&E and EPA, Region VIII as outlined in Part VI(D)(1)(b) and (8). In addition, the brief written report outlined in Part VI(C) and the written followup report outlined in Part VI (H) will not be required for these incidents

D CONTINGENCY RESPONSE PLAN

Response procedures are incident dependent. However, several phases of response efforts are common to all incidents, and include

- 1 Discovery and notification,
- 2 Identification of released or suspected released materials,
- 3 Hazard assessment/consequence assessment,
- 4 Response and control procedures,
- 5 Measures to prevent recurrence, and
- 6 Storage and treatment of released materials

The initial steps of response (incidental or emergency, as defined by 29 CFR 1910.120) to any hazardous waste incident are described in the following sections

OFFSITE FLOWCHART

```
graph TD
    Start([EMPLOYEE DISCOVERS LEAK, SPILL, OR OTHER RELEASE]) --> D1{IS THERE A RELEASE (OR THREAT OF RELEASE) TO AN HHS REQUIRING AN EMERGENCY REMOVAL ACTION?}
    D1 -- YES --> A1[DOE NOTIFY COPHLE AND EPA IAG COORDINATORS WITHIN 12 HOURS]
    A1 --> D2{DOES RELEASE INVOLVE PETROLEUM PRODUCT OR OIL FROM VEHICLES OR DIESEL-POWERED EQUIPMENT?}
    D2 -- YES --> A2[FILE RCRA CONTINGENCY PLAN IMPLEMENTATION REPORT WITH COPHLE WITHIN 15 DAYS]
    D2 -- NO --> D3{DID RELEASE RESULT IN AN INJURY REQUIRING MORE THAN FIRST AID?}
    D3 -- YES --> A3[NOTIFY COPHLE-EMU (756-4455) WITHIN 24 HOURS AND PROVIDE A WRITTEN NOTIFICATION TO COPHLE-HMMMD REPRESENTATIVE AND EPA, REGION VII NO LATER THAN NEXT WORKING DAY (VIA FACSIMILE) (SEE NOTE 1)]
    A3 --> A2
    D3 -- NO --> D4{DID RELEASE RESULT IN HAZARDOUS WASTE?}
    D4 -- YES --> D5{WAS RELEASE INSIDE BUILDING OR WITHIN CONTAINMENT?}
    D5 -- YES --> D6{IS THERE A POSSIBLE PATHWAY AND PROBABLE RELEASE TO ENVIRONMENT?}
    D6 -- YES --> D7{IS RELEASED QUANTITY ≥ 40 CFR 302 REPORTABLE QUANTITY?}
    D7 -- YES --> A4[NOTIFY COPHLE-EMU (756-4455) WITHIN 24 HOURS AND PROVIDE BRIEF WRITTEN REPORT TO COPHLE-HMMMD REPRESENTATIVE NO LATER THAN NEXT WORKING DAY (VIA FACSIMILE) (SEE NOTE 1)]
    D7 -- NO --> D8{WAS RELEASE FROM RCRA TANK SYSTEM AND NOT CLEANED UP IN 24 HOURS?}
    D8 -- YES --> A5[FILE TANK RELEASE REPORT WITH COPHLE WITHIN 30 DAYS]
    D8 -- NO --> A2
    D6 -- NO --> D9{IS RELEASED QUANTITY ≥ 40 CFR 302.4 REPORTABLE QUANTITY?}
    D9 -- YES --> A6[NOTIFY EPA'S NATIONAL RESPONSE CENTER]
    A6 --> D10{DOES THE INCIDENT MEET THE CRITERIA TO IMPLEMENT THE EPLAN? (SEE NOTE 3)}
    D10 -- YES --> A7[ACTIVATE EOC AND IMMEDIATELY NOTIFY STATE OF COLORADO AND LOCAL AGENCIES (SEE NOTE 4)]
    A7 --> D11{WAS A HAZARDOUS WASTE TANK SYSTEM INVOLVED?}
    D11 -- YES --> A8[NOTIFY COPHLE WITHIN 24 HOURS OF TANK RELEASE TO ENVIRONMENT]
    A8 --> A5
    D11 -- NO --> A9[NOTIFY COPHLE-EMU (756-4455) WITHIN 24 HOURS AND PROVIDE A WRITTEN NOTIFICATION TO COPHLE-HMMMD REPRESENTATIVE AND EPA, REGION VII NO LATER THAN NEXT WORKING DAY (VIA FACSIMILE) (SEE NOTE 1)]
    A9 --> A2
    D10 -- NO --> D12{WAS RELEASE CLEANED UP IN < 24 HOURS?}
    D12 -- YES --> A8
    D12 -- NO --> A9
```

1) THE BRIEF WRITTEN DESCRIPTION WILL INCLUDE THE DATE, TIME, AND LOCATION OF THE INCIDENT THE NAME, QUANTITY AND EXTENT OF THE RELEASED MATERIAL, AND THE ACTIONS TAKEN OR PLANNED TO CLEANUP AND/OR REMOVE THE RELEASED MATERIALS

2) OTHER UNPLANNED RELEASE REGULATORY NOTIFICATIONS (CERCLA, SARA TITLE III CAA, CWA, HMUTA) WILL BE COMPLETED IF REQUIRED

3) REFERENCE PFET'S SITE EPLAN AND IMPLEMENTING PROCEDURES.

4) AS PART OF PFET'S SITE EMERGENCY PLAN REQUIREMENTS, RECOMMENDATIONS WILL BE MADE CONCERNING THE NEED FOR OFFSITE EVACUATION

VI-5

by the Emergency Preparedness organization. Plant personnel will be notified via the LS/DW System and provided with information regarding best routes and methods of transportation. In addition to the LS/DW system, two-way radios and the internal telephone system are used to notify facility personnel of the nature of the emergency and the recommended plan of action. In the event of the failure of both the normal and emergency power, the EC/IC will communicate instructions to area supervisors by telephone, two-way radio, messenger, etc.

d Off-site Evacuation

If a release threatens or may threaten areas off plant site, the RFETS Site EPLAN will have been implemented and the EC/IC will recommend to CDPH&E appropriate protective actions, e.g., shelter or evacuation.

H REQUIRED REPORTS

The EC/IC will record the date and details of any incident that required the implementation of the RCRA Contingency Plan in the facility operating record. For releases that may endanger health or environment (e.g., occurrences that have been categorized as an "Emergency"), the Permittee must file a written report with the Director and EPA within 5 days after the incident unless waived by the Director. For releases that do not immediately endanger health or environment, the Permittee must file a written report with the Director and EPA within 15 days. The written report must include

- Name, address, and telephone number of the facility owner or operator,
- Name, address, and telephone number of facility,
- Date, time, and type of incident,
- Name and quantity of material(s) involved,
- When applicable, an assessment of actual or potential hazards to human health and the environment, including protective measures taken, and
- Estimated quantity and disposition of recovered material that resulted from the incident

1 Plan Review and Update

Any fires, explosions, or releases that require implementation of the RCRA Contingency Plan will be thoroughly reviewed. The appropriate management may appoint a committee which will be responsible for

- Investigation of the cause of the occurrence or incident,
- Identification of measures to prevent a recurrence, and
- Coordination of the implementation measures to reduce risk of a recurrence

OCCURRENCE REPORT

Liquid Waste Treatment

(Name of Facility)

Balance-of-Plant

(Facility Function)

Rocky Flats Env Technology Site / Kaiser-Hill Company, L.L C

(Name of Laboratory, Site or Organization)

Name M Wheeler

Title Facility Manager

Telephone No.. (303)966-9878

(Facility Manager/Designee)

Name. JENSEN, J A

Title OCCURRENCE INVESTIGATOR

Telephone No.. (303)966-4946

(Originator/Transmitter)

Name R. L Burns

Date: 11/04/1996

(Authorized Classifier (AC))

1. OCCURRENCE REPORT NUMBER RFO--KHLI-LIQWASTE-1996-0004
Oak Ridge Tanker Vehicle Hazardous Material Release From Pump Exhaust
During Liquid Transfer Operations From Building 774

2	REPORT TYPE AND DATE.	Date	Time
[]	Notification	10/17/1996	0918 MTZ
[]	Initial Update	11/04/1996	1325 MTZ
[]	Latest Update	11/04/1996	1325 MTZ
[X]	Final	11/05/1996	1416 MTZ

3 OCCURRENCE CATEGORY
[] Emergency [] Unusual [X] Off-Normal [] Cancelled

4 NUMBER OF OCCURRENCES. 1 ORIG. OR:

5. DIVISION OR PROJECT Kaiser-Hill Company, L.L.C.

6. SECRETARIAL OFFICE: EM - Environmental Management

7. SYSTEM, BLDG., OR EQUIPMENT:
Building 774 - 765 Parking Lots

8 UCNI? No

9. PLANT AREA: Asphalt Parking

10. DATE AND TIME DISCOVERED
10/16/1996 1400 (MTZ)

11. DATE AND TIME CATEGORIZED:
10/16/1996 1430 (MTZ)

12. DOE NOTIFICATION:

13. OTHER NOTIFICATIONS.

10/16/1996	1430 (MTZ)	ON&R, Stewart by Wheeler	DCI
10/16/1996	1628 (MTZ)	SHIFT SUPER, Hebert	K-HILL
10/16/1996	1456 (MTZ)	DOE FAC REP, Bressler	DOE RFFO

14. SUBJECT OR TITLE OF OCCURRENCE

Oak Ridge Tanker Vehicle Hazardous Material Release From Pump Exhaust
During Liquid Transfer Operations From Building 774

15. NATURE OF OCCURRENCE

02) Environmental

B. Hazardous Substances/Regulated Pollutants/Oil Releases

16. DESCRIPTION OF OCCURRENCE:

On October 10, 11, 1996, liquid transfer operations involving a waste oil from Building 774, contaminated with PCBs and RCRA constituents and a Tanker Vehicle from Oak Ridge, Tennessee were involved in two reportable/incidental releases. During the transfer process, personnel observed liquid exiting the vacuum pumping apparatus through the pump's exhaust/demister unit and was observed dispersing to the ground/paved areas. The liquid was believed to be condensate from the vacuum pump operation

Laboratory analysis indicated the following F001/F002 listed hazardous materials were involved:

- a) Trichloroethene/amount 250ppm
- b) Methylene Chloride/amount 33ppm
- c) 1,1,1-Trichloroethane/amount 930ppm

Further analysis showed less than 2ppm PCB (limit of detection) indicating no PCB contamination of the released liquid by the waste oil.

October 11, 1996 (0245 hours), it was noted on the Fire Departments Serious Incident Report (SIR), that the first spill involved a release of one (1) cup near the front end of the tanker on the roadway outside Building 765 (Tank 308), and one (1) cup east of Building 774 (Tank 102).

October 11, 1996 (1700 hours), the transfer operations resumed at the same locations (as above) and a larger release, approximately one (1) gallon was observed which was also observed dispersing to the ground/paved areas due to failure of a plastic bag that had been placed under the exhaust condensate line after the first two (2) incidents.

NOTE. The releases/spills were immediately cleaned-up by trained/qualified personnel, therefore categorizing the issue as an "incidental release," per 29 CFR 1910.120, INCIDENTAL RESPONSE.

16 DESCRIPTION OF OCCURRENCE: (continued)

NOTE This occurrence report will address both Internally reportable incidents associated with the pumping evolution or operation Rocky Flats Environmental Technology Site (RFETS) Internal tracking numbers #961584 and #961589 will both be combined and addressed chronologically in this occurrence report Based on the completion of laboratory analysis (stated above), a determination to upgrade the incident was made as a result of additional analysis, identifying RCRA Constituents.

17 OPERATING CONDITIONS OF FACILITY AT TIME OF OCCURRENCE:
Scheduled second time transfer operation using the Oak Ridge tanker vehicle and associated vehicle pumping equipment attached to tanker.

18 ACTIVITY CATEGORY:
Facility Decontamination/Decommissioning

- 19 IMMEDIATE ACTIONS TAKEN AND RESULTS
- 1) Fire Department personnel performed cleanup using rags. Rags and rubber gloves used for the cleanups were placed into plastic bags and disposed of per Site requirements.
 - 2) A plastic bag was strategically located under/around the exhaust pipe to collect any residual release This action was taken after the first incident during the transfer operation on October 10, 1996
 - 3) A Fact-Finding Meeting was scheduled to review these occurrences and to determine corrective actions to prevent reoccurrence.

20. DIRECT CAUSE.
4) DESIGN PROBLEM
B Inadequate or Defective Design

21 CONTRIBUTING CAUSE(S):

22. ROOT CAUSE.
4) DESIGN PROBLEM
B. Inadequate or Defective Design

23 DESCRIPTION OF CAUSE.
Both the direct and root causes have been attributed to inadequate design and/or poor or lack of maintenance of the tanker by the Oak Ridge K-25 site Numerous physical and design deficiencies were noted as a result of this occurrence.

24. EVALUATION. (By Facility Manager/Designee)

The representative from the K-25 Site indicated this tanker could be loaded from individual drums in approximately 45 minutes, utilizing a two (2) inch "stinger". Since the loading operation required drawing liquid from Building 774 through a one (1) inch line, an estimate was made that loading would take from two to four hours. In fact, actual loading took approximately nine (9) hours. The extended loading time was probably a key factor in generating more condensate than the K-25 site had ever experienced before

Had the tanker arrived on schedule, and had the vacuum pump motor promptly started without assistance from garage personnel, the loading operation may well have been completed in one day, thereby eliminating one shutdown and one startup, in turn reducing the volume of condensate produced.

Obviously the vacuum pump exhaust system is not designed to capture, store, and release condensate on a regular and controlled basis. Several design flaws have been identified, requiring modification

The demister segment of the vacuum system may have accumulated excessive liquid, which in turn may have contributed to excessive condensate generation and release. Draining of the demister is not included in K-25's operating instructions, and was not addressed by the K-25 representative as something that needed to be watched, maintained or drained

25 IS FURTHER EVALUATION REQUIRED? Yes [] No [X]

26. CORRECTIVE ACTIONS

(* = Date added/revised since final report was signed off)

01) The following modifications/repairs/actions shall be requested of Oak Ridge Tennessee, K-25 Facility, and will be verified by Rocky Flats Environmental Technology Site personnel prior to receipt of this tanker for further shipments:

1) Provide documented repair and/or maintenance of the vacuum pump motor battery, alternator and electrical system gauge.

2) The vacuum pump exhaust muffler shall be equipped with a system or method to drain any accumulated free liquid, as the muffler is the low-point throughout the exhaust system for liquid condensate accumulation.

3) The vacuum pump exhaust pipe shall be fitted with a tight fitting end cap capable of preventing release of accumulated liquids, including those associated with changes in ambient temperatures and pressures while the system is not in operation

4) The exit pipe of the exhaust system shall be relocated farther to the rear of the tanker fender to provide better

26 CORRECTIVE ACTIONS: (continued)
(* = Date added/revised since final report was signed off)

- 01) access for a containment system to be placed/attached under the exit pipe. The current exit pipe location above the tire and mud flap is difficult, at best, to manage.
5) A schematic diagram and operating instructions for draining the vacuum demister and the entire tanker system will be provided to RFETS. RFETS personnel require a better understanding of the system's capabilities and possible fail points.
6) The K-25 Site shall retrofit the fuel tank to include a fuel gauge. The vacuum pump engine fuel tank does not have a fuel gauge, even though the operating procedure indicates that running the tank dry can cause significant engine damage.
7) A small hydraulic fluid leak at the hydraulic discharge valve at the rear of the tanker shall be repaired.
8) Receipt of the tanker should include certification that:
1. Vacuum pump engine fuel tank filled immediately prior to departure from the K-25 site
2. Demister drained.
3. Vacuum exhaust system drained of all free liquids.
4. Battery, alternator, and electrical systems have been serviced and are operable.
RESPONSIBILITY: M. Wheeler, Facility Manager.

*TARGET COMPLETION DATE: 06/30/1997 COMPLETION DATE: Not given

- 02) RFETS Work Instructions will be modified to include a requirement for adequate closure and sealing of the vacuum exhaust system prior to moving the tanker or leaving it unattended.
RESPONSIBILITY: M. Wheeler, Facility Manager

TARGET COMPLETION DATE: 12/31/1996 COMPLETION DATE: Not given

- 03) Regardless of modifications made to the tanker, adequate, rigid secondary containment will be in place at all times when the exhaust system is not securely sealed.
RESPONSIBILITY: M. Wheeler, Facility Manager.

TARGET COMPLETION DATE: 12/31/1996 COMPLETION DATE: Not given

27 IMPACT ON ENVIRONMENT, SAFETY AND HEALTH.

There has been determined to have been only minimal impact on the environment which was mitigated, and NO impact upon the health or safety of Site workers involved.

28. PROGRAMMATIC IMPACT.

There were no identified programmatic impacts as a result of this occurrence.

29. IMPACT UPON CODES AND STANDARDS:

There were no identified impacts on codes or standards.

30. LESSONS LEARNED

It is extremely important to become thoroughly and comfortably familiar with any equipment prior to actual usage at RFETS to prevent possible health, safety or environmental problems.

Site personnel must continue to maintain a "questioning/inquisitive" attitude to anticipate any potential problems that may arise prior to and during actual operation.

Providers of this type of equipment to RFETS must also assume responsibility to anticipate potential fail points and equipment inadequacies, and, to correct these inadequacies as they are identified.

31. SIMILAR OCCURRENCE REPORT NUMBERS:

1) None found

32. USER FIELD #1

961584, 961589

33. USER FIELD #2

34. DOE FACILITY REPRESENTATIVE INPUT

Entered by

Date:

35. DOE PROGRAM MANAGER INPUT

Entered by:

Date:

36. SIGNATURES: (FM's original signature on hardcopy)

Approved by M. Wheeler
Facility Manager/Designee

Date: 11/04/1996
Telephone No.: (303)966-9878

Approved by: CHRIST, JOSEF W
DOE Facility Representative/Designee

Date: 11/05/1996
Telephone No.: (303)966-7717

Approved by: Approval delegated to FR
DOE Program Manager/Designee

Date:
Telephone No.: